

CLAIMS

1. A grease gun having a body, a base joined to the body, a barrel joined to the body, a grease dispensing member connected to the barrel, an elongated grease pumping chamber located in said body and barrel, a grease supply passage in said base and body open to said pumping chamber to allow grease to flow into the pumping chamber, a check valve connected to said barrel to prevent grease and air from flowing back from the grease dispensing member into the pumping chamber, a plunger located in said grease pumping chamber, a power unit connected to said body and plunger operable to reciprocate the plunger in said pumping chamber to pump grease through said pumping chamber and check valve into the grease dispensing member, a member mounted on the base for supplying grease to the grease supply passage, the improvement of: a thread hole in said body aligned with the grease supply passage and open to the pumping chamber, a threaded stem located in said threaded hole, said stem having at least one linear side groove open to the pumping chamber, and a head joined to said stem, said head and stem when rotated in one direction opens the side groove to atmosphere whereby air in the pumping chamber and grease supply passage is bled therefrom and replaced with grease, and said head and stem when rotated in a direction opposite the one direction closes the threaded hole to prevent grease from flowing out of the threaded hole and air from flowing into the pumping chamber.

2. The grease gun of Claim 1 including: a plurality of linear side grooves in said stem for allowing air to bleed from the pumping chamber and grease supply passage.

3. The grease gun of Claim 1 including: an annual seal assembly surrounding said stem adjacent the head engageable with said body when the stem closes the threaded hole.

4. The grease gun of Claim 3 wherein: said seal assembly comprises an O-ring and a washer surrounding said stem, said O-ring being located in sealing engagement with the body when the stem closes the threaded hole.

5. The grease gun of Claim 4 wherein: the washer includes outwardly directed fingers that contact the body to inhibit rotation of the O-ring relative to the stem during turning of the stem.

6. The grease gun of Claim 1 including: at least one ear joined to the head to facilitate turning of the stem and head.

7. The grease gun of Claim 1 wherein: said stem has an inner end adjacent the pumping chamber and an outer end joined to said head, said side groove extended from the inner end of the stem about halfway to the outer end thereof.

8. The grease gun of Claim 7 wherein: said stem has a plurality of side grooves, each of said side grooves extended from the inner end of the stem about halfway to the outer end thereof.

9. A grease gun having a body, a base joined to the body, a barrel joined to the body, a grease dispensing member connected to the barrel, an elongated grease pumping chamber located in said body and barrel, a grease supply passage in said base and body open to said pumping chamber to allow grease to flow into the pumping chamber, a check valve connected to said barrel to prevent grease and air from flowing back from the grease dispensing member into the pumping chamber, a plunger located in said grease pumping chamber, a power unit connected to said body and plunger operable to reciprocate the plunger in said pumping chamber to pump grease through said pumping chamber and check valve into the grease dispensing member, a member mounted on the base for supplying grease to the grease supply passage, the

improvement of: a threaded hole in said body open to the pumping chamber, a threaded stem located in said threaded hole, said stem having at least one side groove at one end thereof open to the pumping chamber and closed at the opposite end thereof, said stem when rotated in one direction opens the side groove to atmosphere whereby air in the pumping chamber and grease supply passage is bled therefrom and replaced with grease, said stem when rotated in a direction opposite the one direction closes the threaded hole to prevent grease from flowing out of the threaded hole and air from flowing into the pumping chamber.

10. The grease gun of Claim 9 including: a plurality of linear side grooves in said stem for allowing air to bleed from the pumping chamber and grease supply passage.

11. The grease gun of Claim 9 including: an annular seal assembly surrounding said stem adjacent the head engageable with said body when the stem closes the threaded hole.

12. The grease gun of Claim 11 including: said seal assembly comprises an O-ring and a washer surrounding said stem, said O-ring being located in sealing engagement with the body when the stem closes the threaded hole.

13. The grease gun of Claim 12 wherein: the washer includes outwardly directed fingers that contact the body to inhibit rotation of the O-ring relative to the stem during turning of the stem.

14. The grease gun of Claim 9 wherein: said stem has an inner end adjacent the pumping chamber and an outer end joined to said head, said side groove extended from the inner end of the stem about halfway to the outer end thereof.

15. The grease gun of Claim 14 wherein: said stem has a plurality of side grooves, each of said side grooves extended from the inner end of the stem about halfway to the outer end thereof.

16. In a grease gun having a body, a grease dispensing member joined to the body, a grease pumping chamber located in the body, a grease supply passage in the body open to said pumping chamber to allow grease to flow into the pumping chamber, the improvement of: an air bleed valve mounted on the body in communication with said pumping chamber and in alignment with the grease supply passage, said valve having an open position to allow air to bleed from the pumping chamber and grease supply passage and a closed position to prevent grease from flowing through the valve and air from flowing into the pumping chamber.

17. The grease gun of Claim 16 wherein: said valve has a threaded member having at least one passage open to the pumping chamber, and said body has a threaded hole aligned with the grease supply passage for accommodating the threaded member, said threaded member being selectively rotatable between open and closed positions.

18. The grease gun of Claim 17 wherein: said passage in the threaded member is at least one side groove open to the pumping chamber for allowing air to bleed from the pumping chamber and grease supply passage.

19. The grease gun of Claim 17 including: an annular seal assembly surrounding said threaded member engageable with the body when the stem closes the threaded hole.

20. The grease gun of Claim 19 wherein: said seal assembly comprises an O-ring and a washer surrounding said threaded member, said O-ring being located in sealing engagement with the body when the threaded member closes the threaded hole.

21. The grease gun of Claim 20 wherein: the washer includes outwardly directed fingers that contact the body to inhibit rotation of the O-ring relative to the threaded member during turning of the threaded member.

22. The grease gun of Claim 17 wherein: said threaded member has an inner end adjacent the pumping chamber and an outer end joined to said head, said side groove extended from the inner end of the threaded member about halfway to the outer end thereof.

23. The grease gun of Claim 22 wherein: said threaded member has a plurality of side grooves, each of said side grooves extended from the inner end of the threaded member about halfway to the outer end thereof.

24. The grease gun of Claim 23 wherein: said threaded member has a plurality of side grooves, each of said side grooves extended from the inner end of the threaded member about halfway to the outer end thereof.